Management of Test Anxiety and Stress among Nursing Students through Cognitive Behaviour Therapy

Synopsis

Of the Thesis Submitted to

Avinashilingam Institute for Home Science and Higher Education for Women,

Coimbatore.

In Partial Fulfilment of the Requirement for the Award of the Degree of

Doctor of Philosophy

In

Counselling Psychology

Submitted by

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18PHCPP003

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ABSTRACT

Stress is a prevalent and serious problem among nursing students, affecting their mental and physical health, academic achievement, and future jobs. Nursing education is noted for its severe standards, which include substantial curriculum burdens, rotations in the clinic, and the need to reconcile academic knowledge with practical abilities. Excessive stress can significantly impact nursing students test anxiety and achievement motivation, hindering their ability to concentrate on test questions and remember previously acquired knowledge. Although mild stress can provide a motivational boost, it is essential to prevent burnout and a loss of drive caused by excessive stress. As a nursing student, it's imperative to understand how test anxiety and stress can impede academic achievement. This study extensively analyzed the efficacy of cognitive behaviour therapy (CBT) in managing test anxiety and stress and in enhancing achievement motivation. One hundred and fifty first and second year nursing students were selected by using the purposive sample method. Test anxiety measure developed by Sharma in 2000, students stress scale created by Agrawal (2012) and the achievement motivation scale created by Bhargava (2009) were the tools used to collect the data. 52 students were screened and agreed to participate in the study, which underwent Cognitive Behaviour Therapy (CBT) for one month on alternate days for ninety minutes each session. The students underwent reassessment using the same set of questionnaires, with a one-month time interval, and were reassessed again for the follow-up phase. The CBT program targeted maladaptive behaviour, frequent minor exam practices, mindful reading, cognitive rehearsal, thought stopping, breathing exercises, balloon blowing. emotion regulation, auto-suggestions, self-monitoring,role-play/modelling, Guided Imagery, videos on motivational talks, SWOT Analysis, cognitive rehearsal, Journaling/Daily log .The study observed three phases: before, after, and follow-up. Mean, Standard Deviation, Repeated Measures ANOVA, and the Bonferroni Post Hoc Test was used to ascertain the data. The results indicate that there were significant reduction in test anxiety, stress, and enhancement in achievement motivation after the intervention. Cognitive Behaviour Therapy was found to be effective in managing test anxiety and stress and in enhancing achievement motivation.

INTRODUCTION

Nursing encompasses autonomous and collaborative care of individual of all ages, families, groups and communities, sick or well and in all settings. Nursing includes the promotion of health, prevention of illness, and the care to ill, disabled and dying people. Advocacy, promotion of a safe environment, research, participation in shaping health policy and in patient and health systems management, and education are also key nursing roles. (International Council of Nurses, 2002).

Nursing training is a combination of theoretical and practical learning experiences that enable nursing students to acquire the knowledge, skills, and attitudes for providing nursing care (Nabolsi, Zumot, Wardam and Abu-Moghli, 2012). Nursing can be described as an action or qualities presented by a person providing care in the context of interaction of a person and his/her environment (Fawett, 1984). One of the greatest nursing theorists Watson (2006), proclaims that the disease might be cured, but illness would remain because without caring, health is not attained and healing does not occur.

Nurses are often a patient's main point of contact with the healthcare system. They communicate directly with patients about their overall care plan and offer other kinds of ongoing support. Some of these tasks are: Explaining what each diagnosis means Interpreting care plan Giving instructions for recovery Connecting patients to support groups and other resources Educating patients on healthy lifestyles habits Advocating for patients to get the best care. Nurses serve a key administrative role, managing the interactions between doctors, technicians and other nurses. They perform a range of activities to keep the entire team coordinated when providing medical care to patients (Nursing duties and responsibilities, 2023).Therefore, nursing is a highly stressful job, wherein students who learn nursing also experiences many physiological, psychological and social difficulties in order to provide a healthy medical care to the patients.

Nursing schools are now recognized as stressful environment that often exert a negative effect on the academic performances and psychological well-being of the students. Studies from the United Kingdom and India have shown increasing levels of stress among nursing students (Gomathi &Jasminedebora, 2017).

Test Anxiety refers to the set of phenomenological, physiological, and behavioural responses that accompany concern about possible negative consequences or failure on an examination or similar evaluative situation (Zeidner, 1998). Test anxiety construct is considered as a situation-specific trait accounting for individual differences in the extent to which people find examinations threatening (Spielberger &Vagg, 1995).

Stress involves changes affecting nearly every systems of the body, influencing how people feel and behave. Severe stress is manifested by the general adaptation syndrome. By causing these mind-body changes, stress contributes directly to psychological and physiological disorder and disease and affects mental and physical health, reducing quality of life (Hans Selye, 1940).

Achievement motivation is affect in connection with evaluated performance in which competition with a standard of excellence was paramount (McClelland, Atkinson, Clark, & Lowell, 1953). Characteristics of individuals with high achievement motivation include an orientation toward problem-solving and moderate challenges, according to theorists like Murray, McClelland and Atkinson.

Need for the Study

Nursing students are prone to stress due to the transitional nature of college life. High levels of stress are believed to affect health and academic functions. Students are subjected to different kinds of stressors such as the pressure of educational curriculum with an obligation to succeed, an uncertain future and difficulties of integrating into the system. Stressors may be found in personal relationships, health issues, financial aspects, and with personal expectations. The results of the study showed that academic stress, test anxiety, and emotional intelligence are all important predictors of the academic success of university students (Stankovska et al., 2018). Students who are test-anxious typically display higher levels of psychological discomfort and amotivations. (Rajiah, Kingston, 2014).

The current study was to find out the efficacy of cognitive behaviour therapy in managing test anxiety, stress and in enhancing achievement motivation among nursing students. Cognitive Behaviour Therapy was used effectively to deal with the cognitive techniques, and behavioural techniques. This study mainly concerned with targeting maladaptive thoughts, self-monitoring, thought stopping, mindfulness, breathing exercise,

journalising, goal setting, guided imagery for success, balloon blowing. motivational story telling.

REVIEW OF LITERATURE

Park and Byun (2021) stated the effect of perceived stress, self esteem and major satisfaction on test anxiety in nursing students and to provide the basic data of control test anxiety. Data was collected from 251 nursing students in B city and analysed by t-test, ANOVA, Pearson correlation and multiple regression using SPS/WIN 22.0.There were significant difference in test anxiety with respect to gender. There was positive correlation between test anxiety and perceived stress, negative correlation were found between test anxiety and self esteem. The factors affecting the test anxiety of the study subjects were perceived stress. Through this research can be used as basic data by identifying factors affecting test anxiety of nursing students

Martin et al.(2022) describe perceived stress and measures of well being (self compassion ,happiness, and life satisfaction) along with self reported health promoting behaviours and health status in affect stress and wellbeing in nursing students. Baccalaureate nursing students from Texas participated in a web-based survey .More than half (56.6. %) of students reported worsening health since starting nursing school. Targeted interventions to improve well being among students may be necessary and would fit with national recommendation for nursing education programmes.

Emlek Sert et al.(2023) aimed at examining how role-playing about school-health screenings affected nursing students' academic performance, motivation, and learning techniques. An experiment comprising experimental and control groups was conducted using a quasi-experimental design. Using various data collecting technologies, information was gathered from 56 nursing students. Average grade point with the Motivated Strategies for Learning Questionnaire. After participating in role-playing, students in the experimental group's grade point average outperformed those in the control group by a large margin. The mean score of the nursing students who participated in the experiment was noticeably higher.

Objectives

This research study focusing on the past, present and future implications of the stress, test anxiety and achievement motivation of female nursing students. The study helps to understand the impact of the stress and test anxiety when nursing students find it highly incompatible in dealing with their schedule and daily life situations. The core objective of

this research was to understand the seriousness of stress and test anxiety among female nursing students, also understanding the achievement motivation aspects of female nursing students.

- To assess level of Stress, Test Anxiety and Achievement Motivation among Nursing Students
- To find out the efficacy of Cognitive Behaviour Therapy in reducing test anxiety and stress enhancing achievement motivation among nursing students.

Hypotheses

- There will be a significant reduction in test anxiety among nursing students during before, after and follow-up phases of cognitive behaviour therapy.
- There will be a significant change in total Stress of nursing students during Before, After and Follow-up phases of Cognitive Behaviour Therapy.
- There will be a significant change in Financial Stress of nursing students during Before, After and Follow-up phases of Cognitive Behaviour Therapy.
- There will be a significant change in Family stress of nursing Students during Before, After and Follow-up phases of Cognitive Behaviour Therapy
- There will be a significant change in Social Stress of nursing Students during Before, After and Follow-up phases of Cognitive Behaviour Therapy
- There will be a significant change in Education Stress of nursing Students during Before, After and Follow-up phases of Cognitive Behaviour Therapy.
- There will be a significant change in Ego Threat of nursing Students during Before, After and Follow-up phases of Cognitive Behaviour Therapy.
- There will be a significant change in Bereavement of nursing Students during Before, After and Follow-up phases of Cognitive Behaviour Therapy
- There will be a significant change in Separation Stress of nursing Students during Before, After and Follow-up phases of Cognitive Behaviour Therapy.
- There will be a significant change in Personal set back of nursing Students during Before, After and Follow-up phases of Cognitive Behaviour Therapy.
- There will be a significant change in the Health of others of nursing Students during Before, After and Follow-up phases of Cognitive Behaviour Therapy.

- There will be a significant change in achievement motivation of nursing Students during Before, After and Follow-up phases of Cognitive Behaviour Therapy.

Sample

The participants were selected through purposive sampling technique. One hundred fifty students have participated in the study. 52 students were selected through screening process and consented to participate in the study. The students who gave their consent were further taken into the cognitive behaviour therapy intervention program.

Inclusion Criteria

- The students who scored high in test anxiety
- The students who have scored high in stress
- The students who have scored low in achievement motivation
- Female participants were included in the study
- Students who consented and willing to take part in the programme

Exclusion Criteria

- Students who were third and fourth year were excluded
- Students from other health and allied courses were excluded
- Students who were affected by COVID were excluded

RESEARCH DESIGN

The Experimental Research Design Method Before, After and Follow-up without control group designs were selected for the present study. A standardized questionnaires made use to collect data. The research was conducted in four phases.

PHASE – I

Nursing students from Baby Memorial College of Nursing were taken part in screening and administration phase of the study. Demographic detail, Test Anxiety Scale (Sharma.2000), Students stress scale (Agarwal.2012) and Achievement Motive Test (Bhargava.2009) were the list of questionnaires used to collect the data before administering the Cognitive Behaviour Therapy to Nursing Students

PHASE II –Cognitive Behaviour Therapy interventions were administered to the Nursing Students who have scored high in Test Anxiety, Stress and Achievement Motivation.

PHASE III – After successful completion of Cognitive Behaviour Therapy Intervention Program, the same set of questionnaires were used for the Phase I were re-assessed.

PHASE IV – Follow-up session was conducted after duration of one month of time interval from the After Cognitive Behaviour Therapy Intervention Program.

Cognitive Behaviour Therapy

Cognitive Behaviour Therapy Intervention program was conducted to manage test anxiety, reduce stress and to enhance achievement motivation among Nursing Students .

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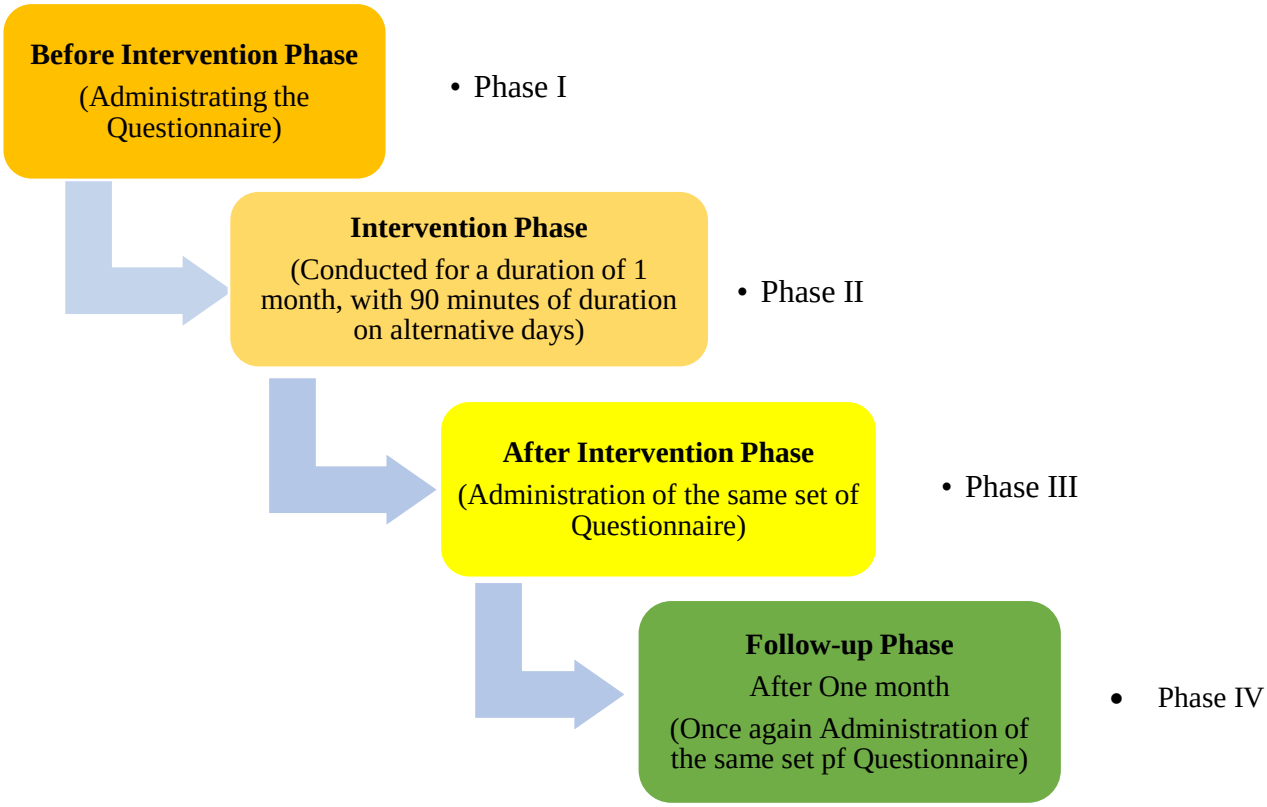
Flow Chart


Before Intervention Phase
(Administrating the Questionnaire)
• Phase I
Intervention Phase
(Conducted for a duration of 1 month, with 90 minutes of duration on alternative days)
• Phase II
After Intervention Phase
(Administration of the same set of Questionnaire)
• Phase III
Follow-up Phase
After One month
(Once again Administration of the same set pf Questionnaire)
• Phase IV

Statistical Analysis

Mean, Standard Deviation and Repeated Measures ANOVA followed by the Bonferroni Post - hoc analysis was used to identify the efficacy of Cognitive Behaviour Therapy (CBT) in managing test anxiety, stress and in enhancing achievement motivation among nursing students

Results

The statistical analysis explored the results of the current study. The Percentage analysis was used to analyze the demographic data of the participants. Repeated Measures ANOVA explored a significant difference in the Before, After, Follow-up experimental phases. F value is less than 0.5% representing the statistical significance among the Before, After and Follow-up experimental phases. Thus, the statistical analysis is persistent by a Post-hoc test.

Descriptive statistics reveals that test anxiety among Nursing Students. The mean score and standard deviation of test anxiety among Nursing Students in Before CBT Intervention Program was M=85.52; SD=5.23, in After CBT Intervention Program, the scores of M=73.82; SD=2.13 and in Follow-up the scores obtained was M=70.29; SD=1.46. It is inferred that the Mean and Standard Deviation scores of the test anxiety along with the CBT Intervention was found to be effective in reducing the test anxiety among the participants.

Descriptive statistics reveals that financial stress among Nursing Students. The mean and standard deviation of in financial stress among Nursing Students Before CBT Intervention Program was recorded as M=22.15and SD=4.31, in the After CBT Intervention Program the obtained score with the M=16.42and SD=4.07and in the Follow-up the obtained scores was M=13.42and SD=3.89. From the results obtained from the Mean and Standard deviation, which represents that there is a reduced financial stress after CBT intervention among Nursing Students. The mean and standard deviation of family stress among Nursing Students Before CBT Intervention was recorded as M=35.09 and SD= 6.83, in After CBT Program the obtained score with the M=26.15 and SD=5.69 and in the follow –up the obtained score was M=21.00 and SD=5.23. From the results obtained from the Mean and Standard deviation, which represents that there is a reduced family stress after CBT intervention among Nursing Students. The mean and standard deviation of social stress

among Nursing Students before CBT Intervention was recorded as M=15.59and SD=5.67, in After CBT Program the obtained score with the M=11.50 and SD=3.47and in the follow –up the obtained score was M=8.98and SD=2.67. From the results obtained from the Mean and Standard deviation, which represents that there is a reduced social stress after CBT intervention among Nursing Students. The mean and standard deviation of Education stress among Nursing Students before CBT Intervention was recorded as M=87.00and SD=14.28, in After CBT Program the obtained score with the M=64.67and SD=14.12and in the follow –up the obtained score was M=50.78and SD=11.21 From the results obtained from the Mean and Standard deviation, which represents that there is a reduced Education Stress after CBT intervention among Nursing Students. The mean and standard deviation of Ego-thread stress among Nursing Students before CBT Intervention was recorded as M=38.98 and SD=8.18, in After CBT Program the obtained score with the M=28.92 and SD=6.48and in the follow –up the obtained score was M=21.98 and SD=5.37. From the results obtained from the Mean and Standard deviation, which represents that there is a reduced Ego thread Stress after CBT intervention among Nursing Students. The mean and standard deviation of Bereavement Stress among Nursing Students before CBT Intervention was recorded as M=22.73and SD=4.10, in After CBT Program the obtained score with the M=15.88 and SD=4.43and in the follow –up the obtained score was M=12.37 and SD=4.11. From the results obtained from the Mean and Standard deviation, which represents that there is a reduced Bereavement Stress after CBT intervention among Nursing Students. The mean and standard deviation of Separation Stress among Nursing Students before CBT Intervention was recorded as M=15.19and SD=4.58, in After CBT Program the obtained score with the M=10.27 and SD=3.86 and in the follow –up the obtained score was M= 8.13 and SD=3.30. From the results obtained from the Mean and Standard deviation, which represents that there is a reduced Separation Stress after CBT intervention among Nursing Students. The mean and standard deviation of Personal Set back Stress among Nursing Students before CBT Intervention was recorded as M=36.42 and SD=5.86, in After CBT Program the obtained score with the M=27.37 and SD=5.54 and in the follow –up the obtained score was M= 21.48and SD=5.44. From the results obtained from the Mean and Standard deviation, which represents that there is a reduced Personal Set back Stress after CBT intervention among Nursing Students. The mean and standard deviation of Heath of others Stress among Nursing Students before CBT Intervention was recorded as M=25.92 and SD=4.57, in After CBT Program the obtained score with the M=18.40 and SD=4.98 and in the follow –up the obtained score was M= 13.92and SD=4.74. From the results obtained from the Mean and

Standard deviation, which represents that there is a reduced Heath of others Stress after CBT intervention among Nursing Students. The mean and standard deviation of Total Stress among Nursing Students before CBT Intervention was recorded as M=297.73 and SD=36.63, in After CBT Program the obtained score with the M=219.21and SD=38.92 and in the follow –up the obtained score was M= 169.65and SD=28.99. From the results obtained from the Mean and Standard deviation, which represents that there is a reduced Total Stress Stress after CBT intervention among Nursing Students. The mean and standard deviation of Achievement Motivation among Nursing Students before CBT Intervention was recorded as M=15.75 and SD=2.52, in After CBT Program the obtained score with the M=21.85and SD=1.38and in the follow –up the obtained score was M= 24.69 and SD=1.45. From the results obtained from the Mean and Standard deviation, which represents that there is a enhanced Achievement Motivation after CBT intervention among Nursing Students.

Repeated Measures ANOVA showed a significant difference in the Before, After and Follow-up experimental phases. Bonferroni Post-hoc test showed a significant differnce in ego threat,bereavement,separation,personal set back, total stress and reduction in test anxiety, financial, family, social, education, ego threat and enhancement in achievement motivation during Before, After and Follow-up phases.

Findings

The following key findings were attained from the results of the data analysis

- A significant difference was found between before, after and follow-up phases for Test Anxiety, Stress And Achievement Motivation among Nursing Students

Conclusions

- Cognitive Behaviour Therapy intervention programme was found to be effective in reducing Test Anxiety, Stress And Enhancing Achievement Motivation among Nursing Students
- Cognitive Behaviour Therapy intervention programme was found to be effective in reducing Test Anxiety and results good academic performance in minimizing the symptomatic behaviours of test anxiety
- Cognitive Behaviour Therapy was highly effective in dealing with reducing level of stress. Thus, improving the nursing student mental health and enhancing better nursing student-patient relationship.

- Cognitive Behaviour Therapy intervention programme was found to be effective in enhancing the level of Achievement Motivation. Whereas, this therapeutic method was highly capable of dealing with increased Achievement Motivation among Nursing Students.

Implications

The implications of the present study are as follows

- Helpful in understanding the theoretical aspects of Test Anxiety, Stress and Achievement Motivation among Nursing Students.
- The results and intervention could help the college administration to gain insight about the problems of the college students and they will be able to bring a positive Change in their life.
- Findings of the present research can help various bodies of the society and for the Government in understanding about the seriousness of this problem and to take necessary steps like imparting psycho education for college students and significant Others to address these issues.
- The findings can also be very helpful in other aspects like creating individual level awareness among college students, taking care of psychological health of the young Students of our Country, changing policies and providing support and care for the Students who are in need and can give insights for the future researchers in addressing Other problematic aspects of the youth of our Nation and so on.

Recommendations

- The nursing colleges should hold training programmes and deliver lectures for the nursing students on coping with psychological problems.
- Provide Counselling services for the students with the trained counsellors.
- Organize workshops to help students improve study habits and time management techniques.
- Maintaining a list of External mental health professionals that students can access if they need any psychological support.

Limitations

- The area of the present research was restricted to a limited geographical location and hence generalizing the results would be done with care.
- Due to practical difficulties, control group could not be included and hence, the role of confounding variables might be present in the obtained results of the study.
- Owing to the time constraints parental and family counselling could not be exercised.

Suggestions for Further Research

- Future studies can include waitlist control group to find out the precise impact of the intervention.
- Conducting a longitudinal study will be more helpful to establish correct sequence of research and to identify changes over time.
- Qualitative or mixed experimental designs could be used to understand about the problems of Nursing students.
- Since Stress, Test Anxiety and Achievement Motivation growing and complex construct to understand, similar studies with other variables could be studied by the researchers.

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